

# Introduction to Carbon Credits

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Environmental Credit  
CORP.

# Environmental Credit Corp.

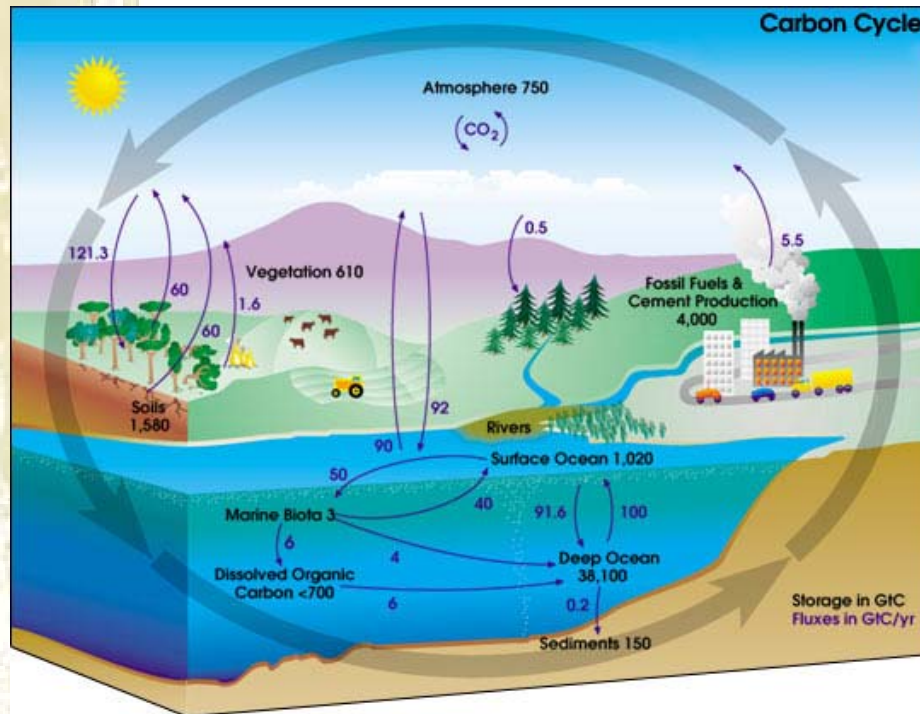
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**ECC creates environmental assets  
from greenhouse gas reduction  
projects**

- Market leader for reliable, indisputable credits generated within diverse market sectors
- Operates a success-based delivery model with our project partners

# Introduction to Carbon Credits

*Carbon credits must be real, quantifiable, verified reductions in GHG emissions*

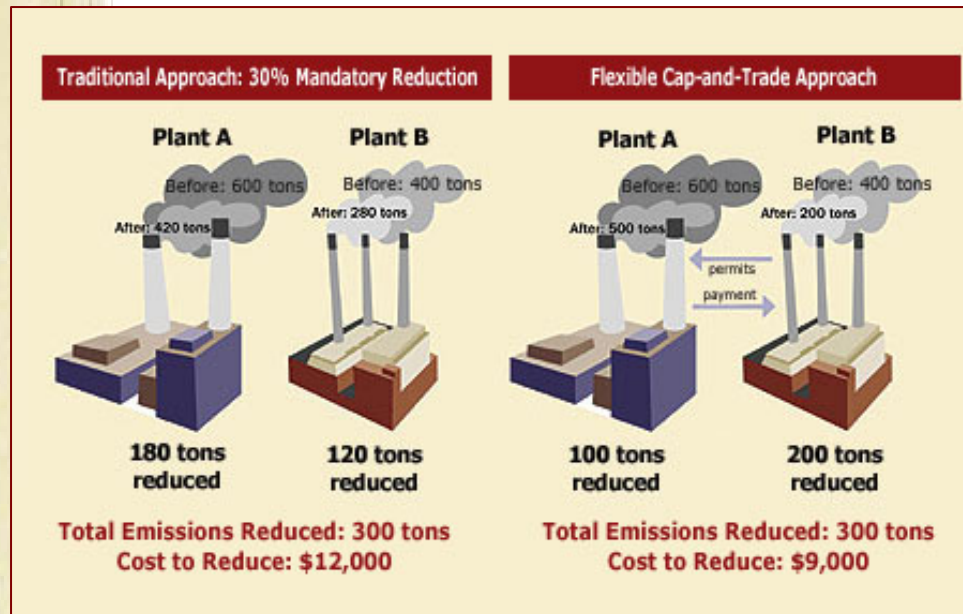


- 6 gases are eligible for carbon credits
- Gases have different values depending on their global warming potential
  - Methane 21 – 23 times more potent than CO<sub>2</sub>
- All GHG expressed as metric tons of CO<sub>2</sub> equivalents.
- One ton of CO<sub>2</sub> equivalent = one carbon credit

# Carbon “Allowances” vs. “Offsets”

## Unregulated (“Voluntary”) Sectors

## Regulated (“Capped”) Sector



← **Agriculture**  
(C+, CH<sub>4</sub>, N<sub>2</sub>O)

← **Forestry**  
(C+)

← **Waste Mgmt**  
(CH<sub>4</sub>, N<sub>2</sub>O)

← **Coal Mine**  
(CH<sub>4</sub>)



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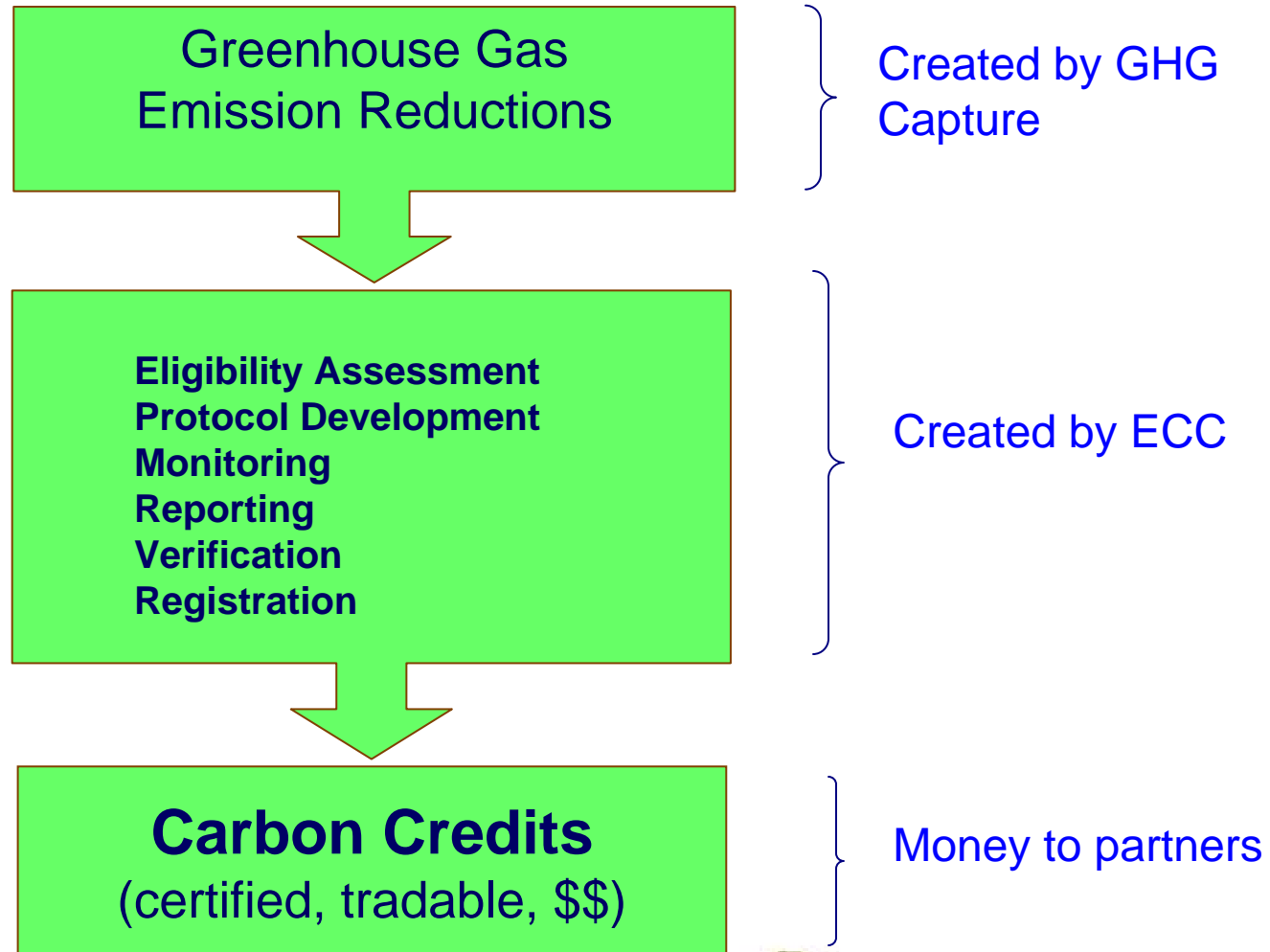
# **“Additionality”**

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- Common practice
  - Activities in common practice are not generally additional
    - Wastewater methane capture
    - Yard waste composting
- Financial additionality
  - Activities with highly favorable economics may not be additional
- Legal additionality
  - Activities that are mandated or required by law are not additional
    - Landfill methane capture (NSPS)



# How to go from carbon to credits



# Carbon World

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- **Two Markets**
  - **Compliance**
    - Kyoto Protocol
      - Specific emission reduction targets
      - EUAs, CDM, JI
  - **Voluntary**
    - United States
    - Many markets:
      - CCX, ERT, EDF, Gold Standard, Voluntary Carbon Standard etc
      - VERs

# Major Carbon Market Sectors

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- Biofuels and Fuel Switching
  - biodiesel
- Methane Capture
  - Agriculture
  - Landfill
- Methane Avoidance
  - Landfill Diversion
- Carbon Sequestration
- Commercial and Industrial





# US Carbon Market Summary

- ~23 million metric tons traded in 2007 (CCX)
- ~\$100 million (overall market)
- Future: \$1 trillion

CCX Carbon Financial Instrument (CFI) Contracts Daily Report



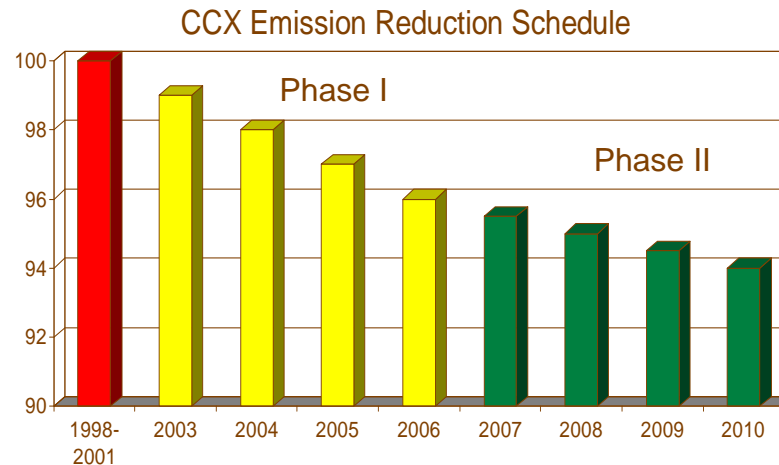
# Which “standard”?...

Chicago Climate Exchange	European Union Emissions Trading Scheme	Maine GHG Initiative
UN Framework Convention on Climate Change	Environmental Resources Trust GHG Registry	Wisconsin Voluntary Emission Reduction Registry
UN Clean Development Mechanism	Canadian Standards Association GHG Registries	The Climate Trust
Regional Greenhouse Gas Initiative	Canadian GHG Reductions Registry	WRI/WBSCD GHG Protocol Initiative
US DOE Voluntary Reporting Program 1605(b)	Canadian GHG Challenge Registry	European Climate Change Program
Multi-State Climate Registry	GHG CleanProjects Registry	Mexico GHG Program
US EPA Climate Leaders Program	CleanAir Canada	WWF Climate Savers Program
California Climate Action Registry	New South Wales GHG Abatement Scheme	World Economic Forum Global GHG Register
California Assembly Bill 32	UK Emissions Trading Registry	Climate Neutral Network
US Mayors Climate Protection Agreement	Voluntary Carbon Standard	The Gold Standard
Eastern Climate Registry	New Hampshire GHG Registry	Green-e GHG Product Standard



# Introduction to CCX

*Chicago Climate Exchange® is a voluntary, legally binding pilot greenhouse gas reduction and trading program for emission sources and offset projects in North America and Brazil.*



- **Pilot Phase, 2003-2006:** Reduce emissions to 4% below 1998-2001 baseline
- **Phase II, 2007-2010:** Additional reductions to 6% below baseline by 2010

# Future of the US Market

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- Rapidly growing
- Reasons behind new membership in voluntary market
  - Pre-compliance education
  - PR and Marketing
  - 'Banking credits'
  - Right thing to do
- Regulations are coming

# Summary

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- Carbon credits are created from emissions reductions and are utilized in a variety of industries
- Credits can be traded in either the compliance or voluntary market
  - US is voluntary
- Growth of the US carbon market is accelerating as opportunities and benefits of credits increase

